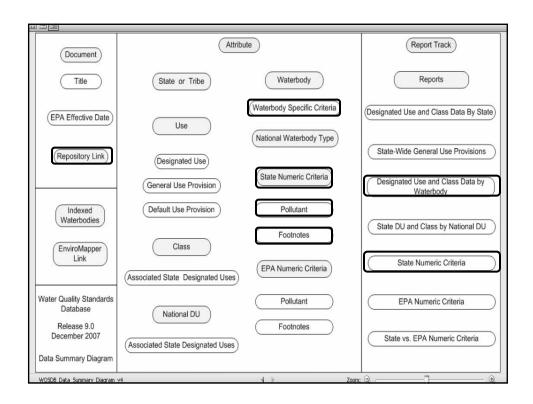
# Overview of Enhancements for the EPA Water Quality Standards Database (WQSDB) v.9

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#### **WQSDB** Release 9 Enhancements

- State criteria is related and linked to designated uses, classes, and waterbodies for analysis.
- Includes priority state drinking water criteria (pollutants and values).
- Added missing data elements (DU names, descriptions, etc.).
- Updated data content based on recently approved Water Quality Standards from the Repository
- Streamlined reporting and database tables to improve data relationships for the overall user interface



#### **WQSDB** Release 9 Reports

- 1. Designated Use and Class Data by State Waterbody
- 2. State Numeric Criteria
- 3. Designated Use and Class Data by State
- 4. State-Wide General Use Provisions
- State Designated Use and Class Data by National Designated Use
- 6. EPA Numeric Criteria
- 7. State Numeric Criteria vs. EPA Numeric Criteria

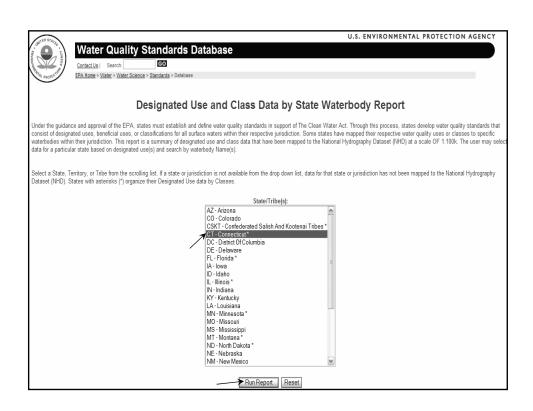
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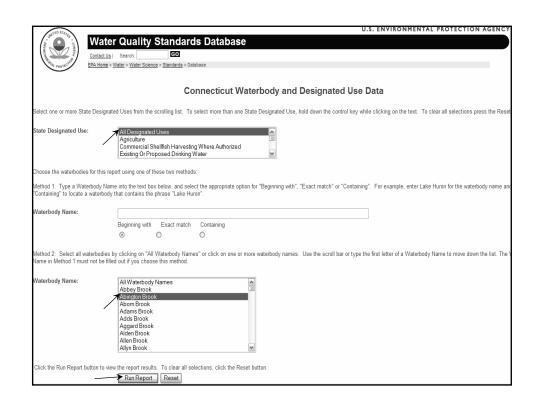
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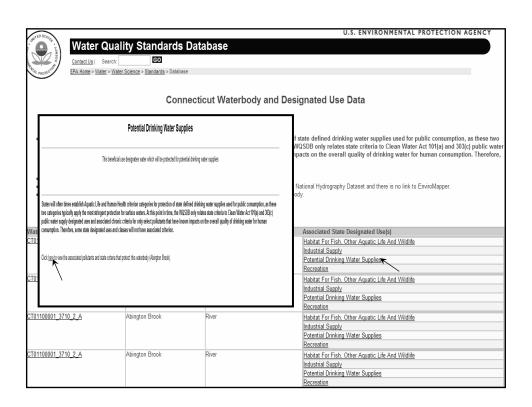
## Designated Use and Class Data by State Waterbody Report

- This report is a summary of designated use and class data that has been mapped (33 states to date) and linked to the NHD stream network at a scale of 1:100k.
- Provides users with the capability to search state water quality information spatially.
- The user may select data for a particular state based on designated use(s) and search by waterbody name.
- Users can view associated pollutants and criterion values intended to protect waterbodies that have drinking water or human health related designated uses or classes.
- Other CWA programs may also view protected state designated use and criteria data by waterbody by using <u>EnviroMapper for Water</u>.
  - Users can use EM to compare mapped WQS to other programs (i.e., impaired waters)

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U.S. ENVIRONMENTAL PROTECTION AGENCY



#### Water Quality Standards Database

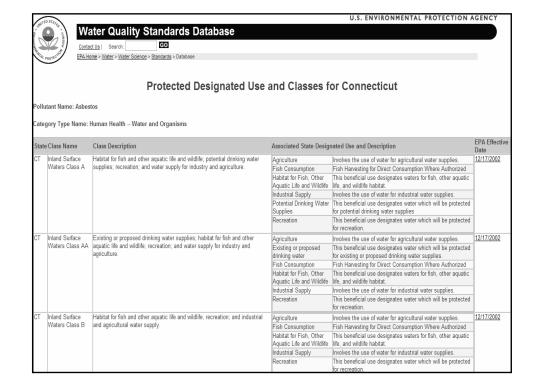
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EPA Home > Water > Water Science > Standards > Database

Associated Pollutants and State Criteria that protect Abington Brook located in Connecticut for Designated Use: Potential Drinking Water Supplies

- States will often times establish Aquatic Life and Human Health criterion categories for protection of state defined drinking water supplies used for public
  consumption, as these two categories typically apply the most stringent protection for surface waters. At this point in time, the WOSDB only relates state criteria to
  Clean Water Act 101(a) and 303(c) public water supply designated uses and associated chronic criteria for only select pollutants that have known impacts on the
  overall quality of drinking water for human consumption. Therefore, some state designated uses and classes will not have associated criterion.
- . Clicking on a Criteria Value will display the associated Protected Designated Uses and Classes for the Pollutant in a pop-up window
- To save the data in this report, select the content, copy it, paste it in a compatible application, such as, a word processing application and save it using the application menu.

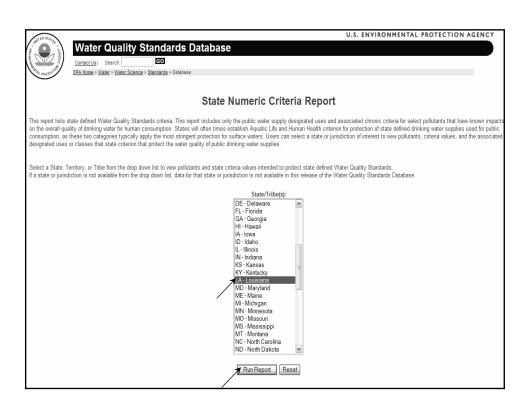
Pollutant	Unit of Measurement Freshwater Aquatic Life (Chronic)		nic)	Human Health - Organisms On	Human Health Water And Organisms		
1,1,2-Trichloroethane	ppb			<u>42</u>	<u>.6</u>		
1,1-Dichloroethylene	ppb			3.2	.057		
1,2,4-Trichlorobenzene	ppb			940	<u>70</u>		
1,2-Dichloroethane	ppb			99	.38		
1,2-Dichloropropane	ppb			39	<u>.52</u>		
Antimony	ppb			<u>4300</u>	<u>6</u>		
Asbestos	MFL				1←		
Benzene	ppb			<u>71</u>	<u>1.2</u>		
Benzo(a)pyrene (PAHs)	ppb			.049	.0044		
Beryllium	ppb			<u>.13</u>	.0077		
Bromodichloromethane	ppb			<u>46</u>	<u>.56</u>		
Bromoform	ppb			<u>360</u>	4.3		
Cadmium	ppb	1.35		10769	<u>5</u>		
Carbon tetrachloride	ppb			4.4	<u>.25</u>		
Chlordane	ppb	.0043	b	.0022	b <u>.0021</u> l		
Chlorine	ppb	11					

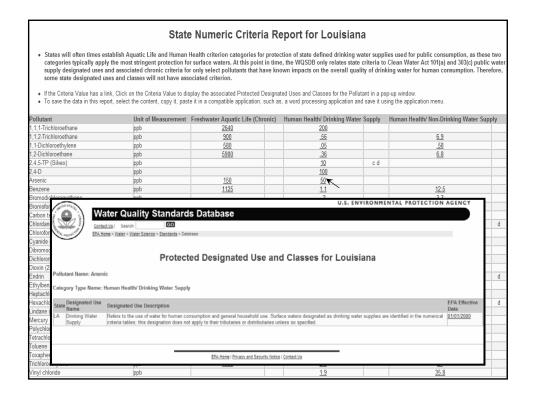


#### State Numeric Criteria Report

- This report lists state defined Water Quality Standards criteria.
- At this time, the WQSDB only relates state criteria to Clean Water Act 101(a) and 303(c) public water supply designated uses and associated chronic criteria for only select pollutants that have known impacts on the overall quality of drinking water for human consumption.
- Users may click on state defined criteria values to view the associated protected Designated Uses and Classes.

http://iaspub.epa.gov/wqsdatabase/rpt st num criteria.run report





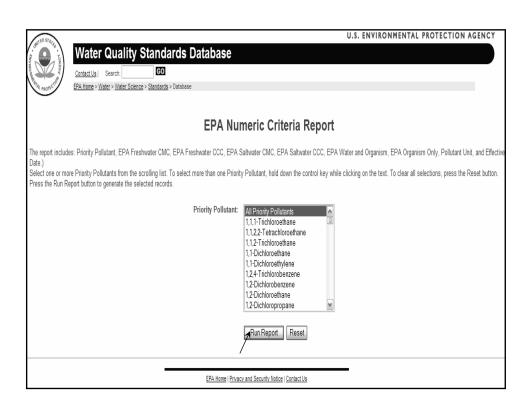
#### Real World Application of Drinking Water Criteria (lessons learned)

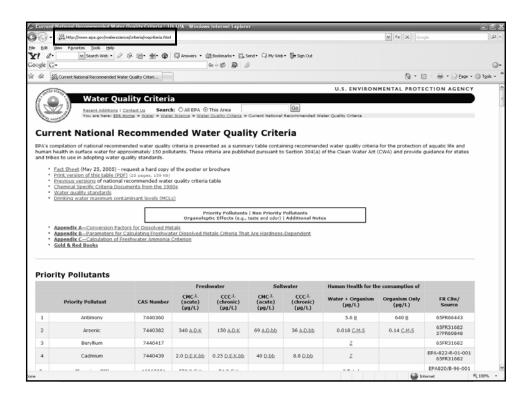
- During Hurricane Katrina, decision makers needed drinking water criteria for pollutants known to cause harm to human health.
- The EPA Emergency Operations Center (EOC), field scientists, and other federal agencies required WQS criteria linked to designated uses and waterbodies where public drinking water supplies would be impacted the most.
- The current WQSDB provides users with the capability to query drinking water criteria by state and when available, by waterbody. Providing a baseline of drinking water criteria to be used by decision makers in the next EPA national emergency response incident

#### **EPA Numeric Criteria Report**

- This report lists the recommended EPA numeric criteria for 120 nationally defined priority pollutants.
- Users may select data based on pollutant(s).

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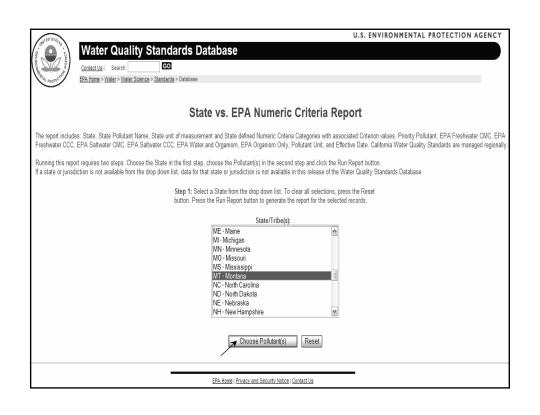


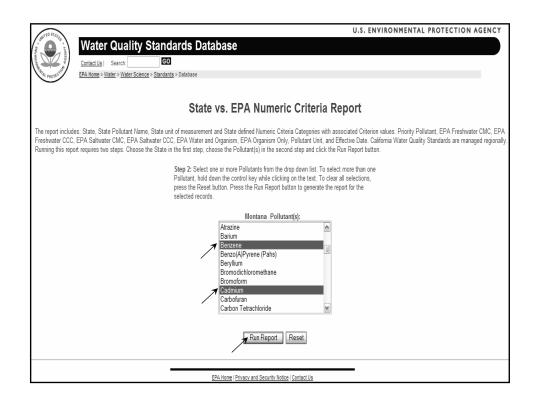


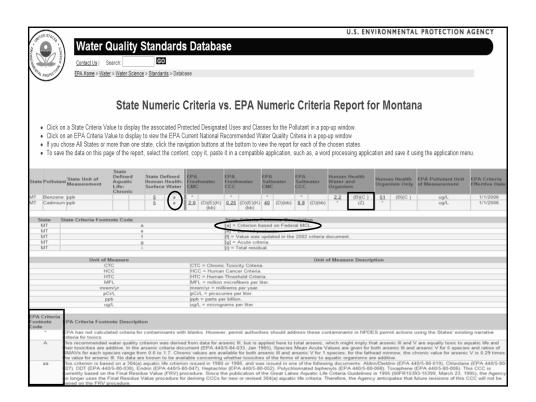
#### State vs. EPA Numeric Criteria Report

- This report compares available state drinking water numeric criteria with the recommended EPA numeric criteria.
- State data includes only the CWA 101(a) and 303(c) public water supply designated uses and associated chronic criteria for select contaminants.
- Users may select data based on pollutant(s).

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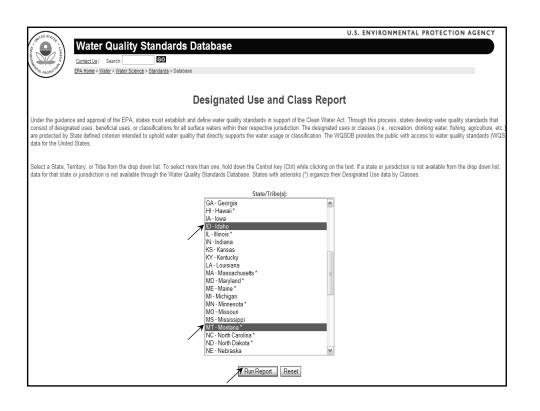




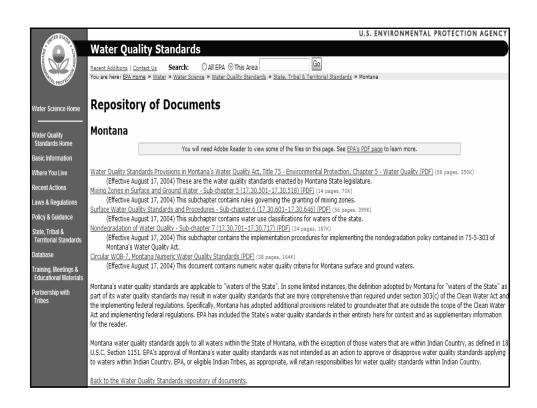
#### **Designated Use and Class Report**

- This report is a summary of designated use and class data by state.
- The user may select data for a particular state and be returned state defined designated use and class descriptions.
- Users may select multiple states for crossjurisdictional comparisons.

http://iaspub.epa.gov/wqsdatabase/rpt\_du\_class\_by\_state.run\_report



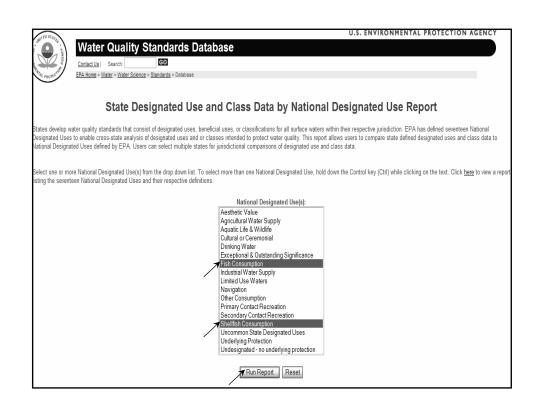
			Designated Use and Class Report					
	Click the	EPA Effective	their data by Classes, click the links in the Associated State Designated Use(s) column to display the Designated Use description in a populate to display the Water Quality Standards Repository of Documents page for the State in a new browser window. report, select the content, copy it, paste it in a compatible application, such as, a word processing application and save it using the application.					
tate	Designate	ed Use Name	Designated Use Description		EPA Effectiv			
	Aesthetic		This use applies to all surface waters of the state.		05/04/2000			
	Agricultura Supply	al Water	Water Water quality appropriate for the irrigation of crops or as drinking water for livestock. This use applies to all surface waters of the state.					
	Cold Wate	d Water Aquatic Life Water quality appropriate for the protection and maintenance of a viable aquatic life community for cold water species.		(	05/04/2000			
			Water quality appropriate for drinking water supplies.		05/04/2000			
		trial Water Supply Water quality appropriate for industrial water supplies. This use applies to all surface waters of the state.			05/04/2000			
	Modified A	Aquatic Life Water quality appropriate for an aquatic life community that is limited due to one (1) or more conditions set forth in 40 CFR 131.10(g) which precluing of reference streams and conditions.		eclude attainment (	05/04/2000			
	Primary C Recreation		Water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of w occur. Such activities include, but are not restricted to, those used for swimming, water skiing, or skin diving.					
	Salmonid		Waters which provide or could provide a habitat for active self-propagating populations of salmonid fishes.					
	Seasonal Aquatic Li		Water quality appropriate for the protection and maintenance of a viable aquatic life community of cool and cold water species, where cold wat may be absent during, or tolerant of, seasonally warm temperatures.	ife community of cool and cold water species, where cold water aquatic life				
	Secondary Recreation		Water quality appropriate for recreational uses on or about the water and which are not included in the primary contact category. These activiti fishing, boating, wading, infrequent swimming, and other activities where ingestion of raw water is not likely to occur.					
	Warm Wa Life	ter Aquatic	Water quality appropriate for the protection and maintenance of a viable aquatic life community for warm water species.	a aquatic life community for warm water species.				
Wildlife Habitat V		abitat	Water quality appropriate for wildlife habitats. This use applies to all surface waters of the state.					
ate	Class	Class Descrip	ntion	Associated State	EPA Effective			
				Designated use	Date			
Т		Waters classified A-1 are suitable for dinking, culinary and flood processing purposes after conventional treatment for removal of naturally present impurities. Agricultural Water quality must be suitable for botathing, swimming and recreation, growth and propagation of salmonid fishes and associated aquatic life, waterfowal and Aguatic Life furbearers; and agricultural and industrial water supply.  Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated aquatic life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated Aguatic Life, waterfowal Aguatic Life Cold Water Expension of Salmonid Fishes and associated Aguatic Life Cold Water Expension of Salmonid Fishes and associated Aguatic Life Cold Water Expension of Salmonid Fishes and associated Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid Fishes and Aguatic Life Cold Water Expension of Salmonid						
	CLOSED	Waters classified A-Closed are suitable for drinking, culinary, and food processing purposes after simple disinfection. Water quality is suitable for swimming, recreation, growth, and propagation of fishes and associated aquatic life, although access restrictions to protect public health may limit actual years of A-Closed waters for these uses. Public access and activities such as livestock grazing and timber harvest are to be controlled by the utility owner under conditions prescribed and orders issued by the department.  Agricultural Agricultu						

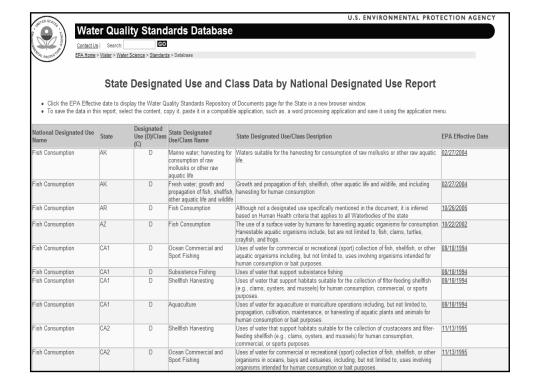


#### State Designated Use and Class Data by National Designated Use

- This report allows users to compare state defined designated uses and class data to National Designated Uses defined by EPA.
- Establishing relationships with NDUs allows users to compare state defined uses/classes across multiple states.

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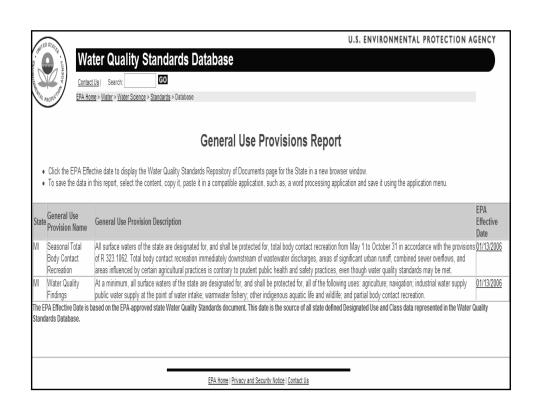




#### State-Wide General Use Provisions

- This report lists state defined General Use Provisions. General Use Provisions establish statewide designated or beneficial uses that protect all surface waters of a state.
- Users may select multiple states for crossjurisdictional comparisons.

http://iaspub.epa.gov/wqsdatabase/rpt\_st\_wd\_gup.run\_report



#### **WQSDB** Future

- This is the final public release of the WQSDB. Release 9 of the WQSDB is scheduled to be removed from the EPA website in February/March 2008.
- EPA is exploring options to transition into a new way of providing access to WQS information in which states can use either their own database or a copy of the WQSDB to manage their WQS information.

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#### Potential WQSDB Enhancements

- Add state defined WQS numeric criteria for recreational related values (*E. coli*, Fecal Coliform, Enterococci, etc.)
- Add Radionuclides and Turbidity criteria data
- For states that have mapped WQS information, capture and store additional criteria values intended to protect *site-specific* waterbodies
- Allow additional cross-state query functionality for defined numeric criteria, designated uses or classes, and waterbody information.

### For additional questions or interest in the EPA Water Quality Standards (WQSDB)

CONTACT...

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